

Proposed GP2020 Circulation Element (CE) ROAD STANDARDS



COUNTY OF SAN DIEGO

**Excerpts from
FEBRUARY 4, 2006 STEERING COMMITTEE HANDOUT**

Updated: April 12, 2006

THIS PAGE LEFT BLANK

PROPOSED GP2020 CIRCULATION ELEMENT (CE) ROAD STANDARDS

This document reflects revisions made to the CE Road Standards as a result of the February 4, 2006 Steering Committee Meeting. The intent is to provide community planning group representatives with the information necessary to develop a preferred road network based on road standards in this document.

Steering Committee Comments

On February 4, 2006 the Steering Committee voted to endorse the proposed GP2020 CE Road Standards, with the provision that a Design Manual will be developed that addresses other road design issues identified by community representatives. The Steering Committee also made minor requests for changes that are reflected in Summary Table 1:

- Separate road types were added for two-lane roads with continuous turn lanes (see 2.1B, 2.2B and 2.3B).
- Existing names were retained for the Expressway, Prime Arterial and Major Road.

However, we did not accommodate the group's request to retain the existing, four-lane Collector Road name (a four-lane road) in order to avoid confusion between that road and the Community Collector, Light Collector and Minor Collector (two-lane roads).

Summary Table 1

The proposed CE Road Standards in Summary Table 1 are organized into a hierarchy of roads ranging from six to two lanes. They include existing, modified, and new CE road classifications. Proposed CE road standards are organized by the number of travel lanes and by design speed, which are important factors

when determining road capacity and road design. Variations on road types were developed by adding options such as medians or dedicated turn lanes.

Summary Table 1 also includes some updated threshold capacities, which are based on Level of Service (LOS) D, the Board endorsed standard for GP2020. Traffic volumes that exceed the threshold capacity will generate levels of service E or F on County roads.

Summary Table 1 contains more than one design speed option for two and four-lane roads. As the design speed decreases, the parkway size increases. Wider parkways are well suited to two locations: Villages and highly constrained areas in Rural Lands. Typical parkways range from 10 feet for roads with higher design speeds (Major Road Series, Community Collector Road Series) to 14 feet for roads with the lowest design speeds (Minor Collector Series).

Relationship to Previous Standards

Use the right hand column of the table to determine how the names for existing and new standards are related. In some cases, newly proposed GP2020 standards for Backcountry Communities are reintroduced with a new name.

Only one previous road type, the Rural Mountain Road, is not represented by a proposed road standard. However, the 2.3 Minor Collector road series would be an appropriate substitute for the Rural Mountain Road in rural, mountainous areas with low traffic volumes.

Summary Table 1: Proposed CE Road Standards

CE Road Series	Travel Lanes	Design Speed	No.	Name for Road Classification	Road Components	Threshold Capacity (ADT)	Minimum ROW (feet) ¹	Relationship to Public Road Standards
6.1 Expressway	6 lanes	65 mph	6.1	Expressway	Median ² / Grade-Separated Interchange	86,000	146'	Same as existing Expressway
6.2 Prime Arterial	6 lanes	65 mph	6.2	Prime Arterial	Median / At-Grade Interchange	50,000	122'	Same as existing Prime Arterial
4.1 Major Road Series	4 lanes	55 mph	4.1A	Major Road with Raised Median	Raised Median	33,400	98'	Same as existing Major Road
			4.1B	Major Road with Intermittent Turn Lanes	Intermittent Turn Lanes	30,800	84' to 98'	Same as existing Collector Road ³
4.2 Boulevard Series	4 lanes	40 mph	4.2A	Boulevard with Raised Median	Raised Median	27,000	106'	New standard
			4.2B	Boulevard with Intermittent Turn Lane	Intermittent Turn Lanes	25,000	92' to 106'	New standard
2.1 Community Collector Series	2 lanes	45 mph	2.1A	Community Collector with Raised Median	Raised Median	15,000	74'	Similar to existing Town Collector (except higher design speed)
			2.1B	Community Collector with Continuous Turn Lane	Continuous Turn Lane	13,500	74'	
			2.1C	Community Collector with Intermittent Turn Lane	Intermittent Turn Lanes	13,500	60' to 74'	New standard
			2.1D	Community Collector with Passing Lane Option ⁴	Passing Lane Option	13,500	84'	Similar to existing Rural Collector
			2.1E	Community Collector	None	10,900	60'	Same as existing Light Collector

¹ The minimum ROW for a 4.2 Boulevard, 2.2 Light Collector and 2.3 Minor Collector may be reduced if located in an area that is already developed. A reduced ROW can be achieved by using a 10' minimum parkway. This solution should not be used where adequate ROW is available for the 12' or 14' parkway standard.

² Medians for Expressways and Prime Arterials are typically raised or depressed, and are defined in the County's Public Road Standards.

³ The current Public Road Standards provide for intermittent turn lanes for a 4-lane Collector Road.

⁴ See footnote 4 (page 5).

CE Road Series	Travel Lanes	Design Speed	No.	Name for Road Classification	Road Components	Threshold Capacity (ADT)	Minimum ROW (feet) ¹	Relationship to Public Road Standards
2.2 Light Collector Series	2 lanes	40 mph	2.2A	Light Collector with Raised Median	Raised Median	13,500	78'	Similar to existing Town Collector (except wider parkway, ROW)
			2.2B	Light Collector with Continuous Turn Lane	Continuous Turn Lane	13,500	78'	
			2.2C	Light Collector with Intermittent Turn Lanes	Intermittent Turn Lanes	13,500	64' to 78'	New Standard
			2.2D	Light Collector with Passing Lane Option ⁵	Passing Lane Option	13,500	88'	Similar to existing Rural Collector
			2.2E	Light Collector	None	10,900	64'	Similar to existing Rural Light Collector
			2.2F	Light Collector with Reduced Shoulder	Reduced Shoulder	8,700	52'	New Standard (Similar to previous Rural Minor Road)
2.3 Minor Collector Series	2 lanes	35 mph	2.3A	Minor Collector with Raised Median	Raised Median	8,000	82'	New Standard
			2.3B	Minor Collector with Intermittent Turn Lane	Intermittent Turn Lane	8,000	68' to 82'	New Standard
			2.3C	Minor Collector	None	7,000	68'	New Standard

⁵ 2.1D and 2.2D road classifications have a wider ROW to accommodate an optional passing lane. However, this road classification could also accommodate other road improvements (intermittent turn lanes, medians, etc.) to improve traffic flow and increase road capacity. Staff recommendations will indicate when other types of road improvements are recommended for the 2.1D and 2.2D road classifications.

Summary Table 2: Location Guide

This table provides guidance on where to locate different CE road classifications during the GP2020 mapping process. ***Within each group, road types are listed in order of preference.*** In general, road classifications with lower design speeds are recommended for two locations. The first is Semi-Rural or Rural Lands characterized by steep slopes (or other physical constraints). The second is Villages, where lower design speeds and wider parkways are provided to slow traffic and to provide adequate space for walkways, landscape buffers, and bike paths within a Village.

Lanes:	Village / Village Core ⁶	Semi-Rural	Rural Lands
6 Lane	<i>Limited use only:</i> 6.1 Expressway or 6.2 Prime Arterial	6.1 Expressway or 6.2 Prime Arterial	6.1 Expressway or 6.2 Prime Arterial
4 Lane	<i>1st Choice:</i> 4.2 Boulevard Series <i>Limited use only:</i> 4.1 Major Road Series	<i>1st Choice:</i> 4.1 Major Road Series <i>2nd Choice:</i> 4.2 Boulevard Series	<i>1st Choice:</i> 4.1 Major Road Series <i>Limited use only:</i> 4.2 Boulevard Series
2 Lane	<i>1st Choice:</i> 2.3 Minor Collector Series <i>2nd Choice:</i> 2.2 Light Collector Series <i>Limited use only:</i> 2.1 Community Collector Series	<i>1st Choice:</i> 2.2 Light Collector Series <i>2nd Choice:</i> 2.1 Community Collector Series <i>Limited use only:</i> 2.3 Minor Collector Series	<i>Few Constraints:</i> 2.1 Community Collector Series <i>Some Constraints:</i> 2.2 Light Collector Series <i>High Constraints:</i> 2.3 Minor Collector Series

This table should be used in conjunction with other mapping criteria prepared for GP2020, which include forecast traffic volumes, adjacent land uses and community preferences. In order to develop a rational network, road mapping should consider the *predominant* topography or land use patterns, and a change in road classification should occur only at road intersections or another easily identifiable location in the network.

⁶ Please note that passing lanes are not appropriate for a Village.

Preliminary Information: Non-Circulation Element Roads

At the request of several Steering Committee members, preliminary information for two additional roads was added to the CE Road Standards handout:

- **Local Public Road:** Local Public Roads may be shown on the regional CE Map when used to resolve road capacity problems within the CE network or when used to link CE roads together into a complete network. Local Public Roads may be shown on a community plan map when they form an important part of a community-wide or town center road network. Community plan maps can also include new road alignments that are being proposed to improve connectivity

within a community. Standards for this road type are located in the County's "Public Road Standards".

- **Fire Access Road:** The Fire Access Road offers a secondary ingress/egress route during fire emergencies. Locations would be identified in community plans. Road standards for fire emergency routes, and policies for gated roads, will be addressed outside the General Plan process.

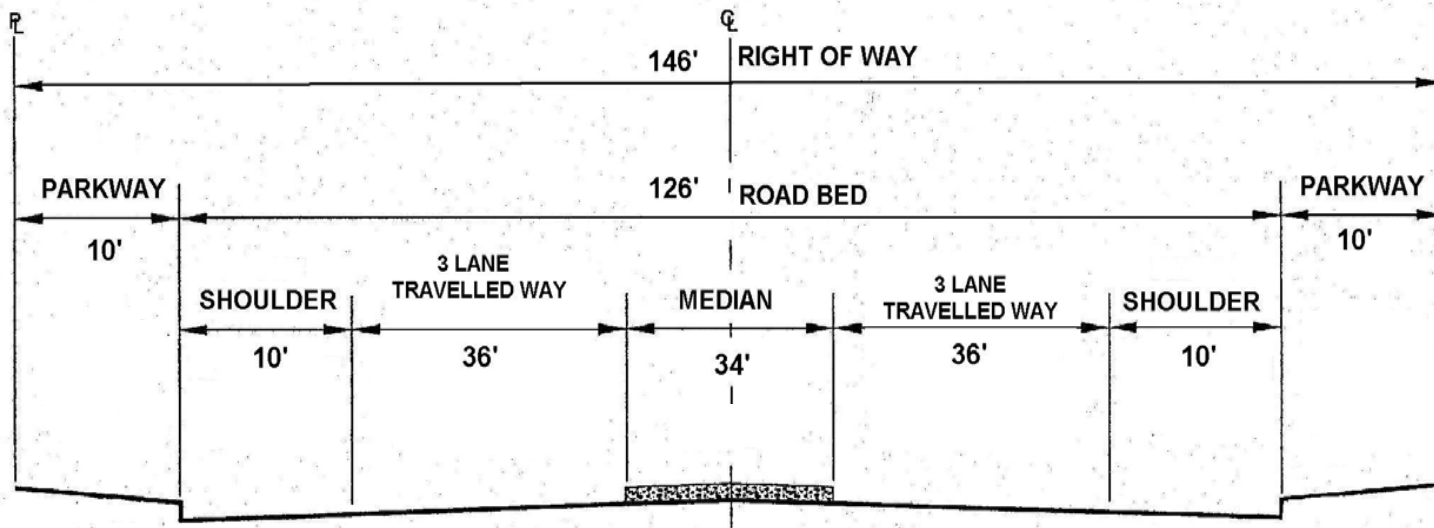
A minimum ROW for Local Public Roads and Fire Access Roads on the CE map will be defined prior to finalizing the Circulation Element Map. At this time, assume a minimum 60 foot minimum ROW for Local Public Roads on the CE map.

Type of Non-CE Road	Travel Lanes	Design Speed	Medians, Passing Lanes, and Dedicated Turn Lane Options	Threshold Capacity (ADT)	Minimum ROW (feet)
Local Public Road	2	Minimum 30 mph	Depends on the type of Local Public Road	4,500	60 ‘
Fire Access Road	2	TBD	None	Not Applicable	TBD

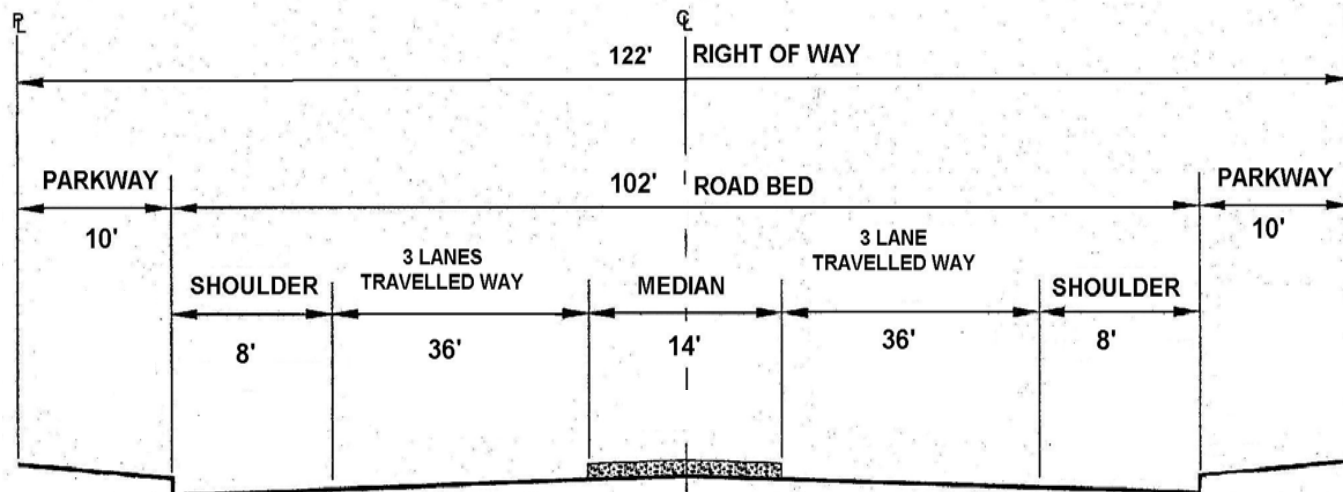
Road Standard Descriptions

The pages that follow contain detailed descriptions for each road standard. Cross sections are included to illustrate the size and organization of all road components. See the Glossary of Terms for an explanation of terms used in the diagrams.

Please note that a wider Right-of-Way (ROW) will be required for bike lanes identified in the Bicycle Master Plan. Areas called Parkways contain landscaping, utilities, and trails or bicycle paths as required. Additional width may be required for trails (called “pathways” in the Trails Master Plan).



6.1 Expressway



6.2 Prime Arterial

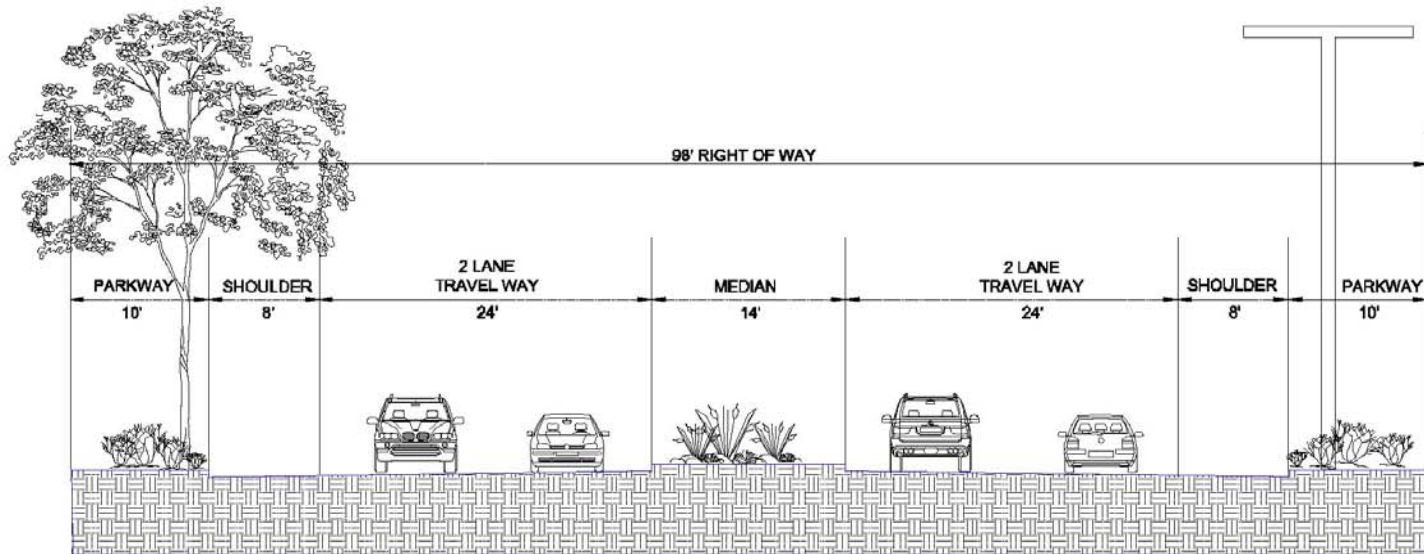
6.1 EXPRESSWAY / 6.2 PRIME ARTERIAL

There are two types of 6-lane road classifications, which are designed to accommodate high speed and high volume traffic. Typically, these roadways should be located outside Villages and in areas with limited physical constraints. The median serves as a separation between travel ways, instead of an area for turning or entering adjacent property.

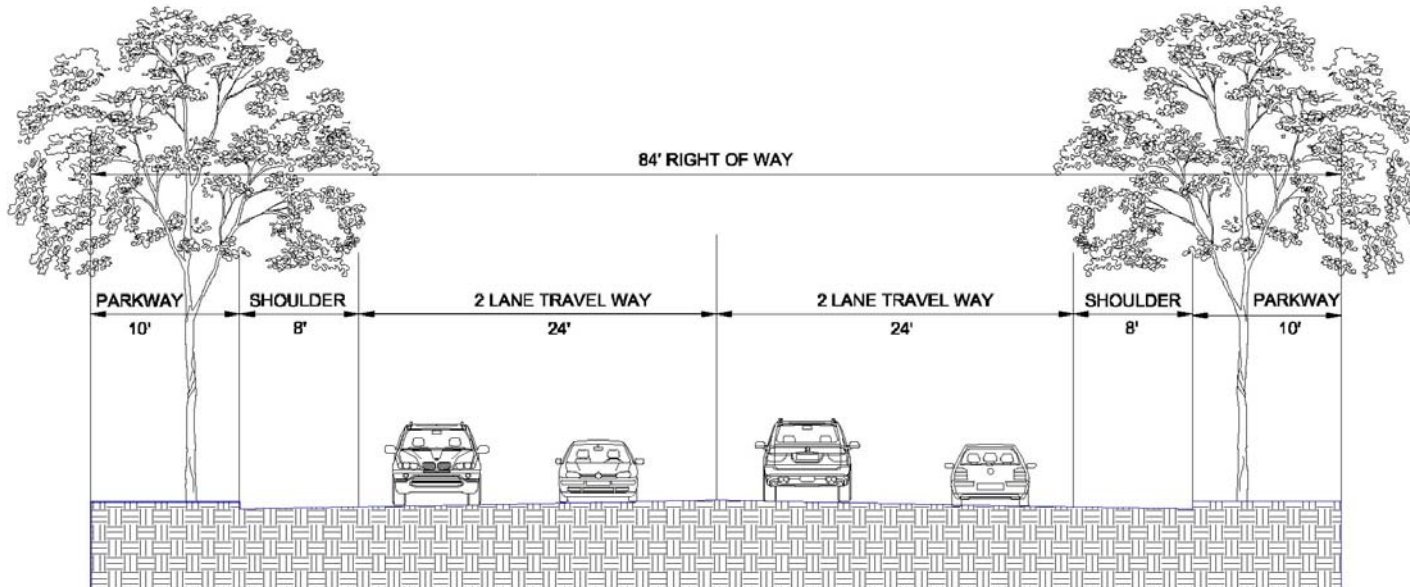
6.1 Expressway is the same as the existing Expressway standard — a divided, multi-lane roadway with a wide median and grade separated interchanges. This road type is similar to a CALTRANS Freeway facility.

6.2 Prime Arterial is the same as the existing Prime Arterial standard — a divided, multi-lane roadway with a median and at-grade interchanges.

	Minimum Standards		Description
	6.1 Expressway	6.2 Prime Arterial	
Design Speed	65 mph	65 mph	
Threshold Capacity	86,000 ADT	50,000 ADT	
ROW	146 ‘	122 ‘	
Travel Way	72 ‘	72 ‘	6 travel lanes, 12’ each
Medians	34 ‘	14 ‘	Raised, depressed or flat with optional surface treatments or landscaping
Shoulder	10 ‘	8 ‘	Primarily serve as vehicle recovery areas, and parking is restricted.
Parkway	10 ‘	10 ‘	10’ parkway includes landscaping and utilities as required.
Interchanges	Grade Separated	At-Grade	



4.1 A - Major Road with Raised Median



4.1 B – Major Road with Intermittent Turn Lanes

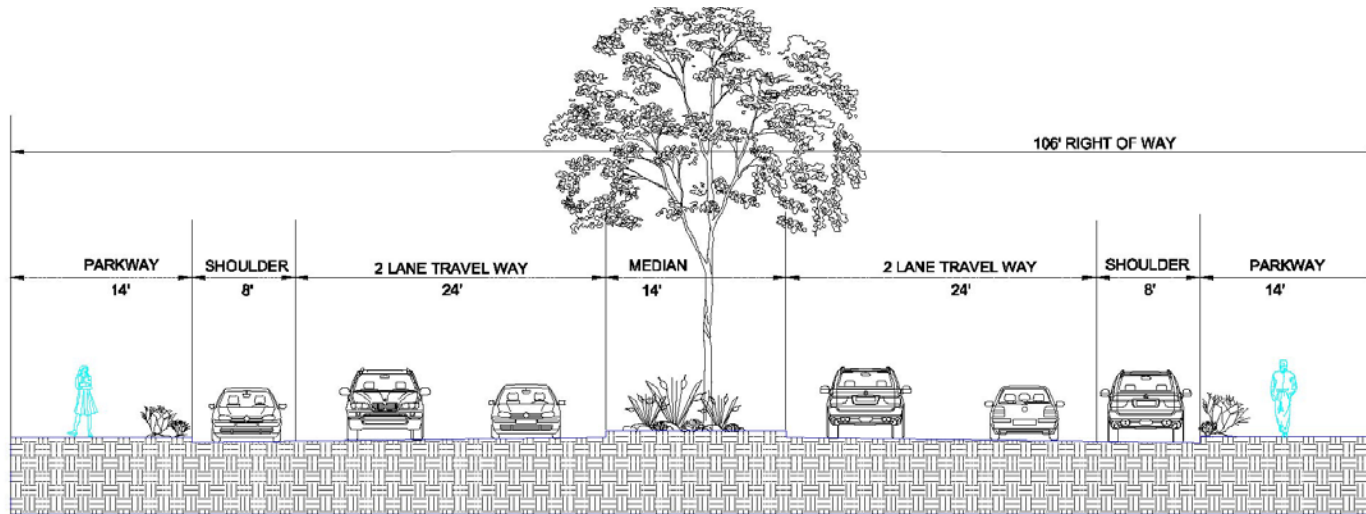
4.1 MAJOR ROAD SERIES

The Major Road is a four-lane roadway that primarily serves medium to high volumes of traffic. Because of its high design speed, this road should typically be located in physically unconstrained areas and its use in Villages should be limited to industrial or heavy commercial areas with low levels of pedestrian and bicycle traffic.

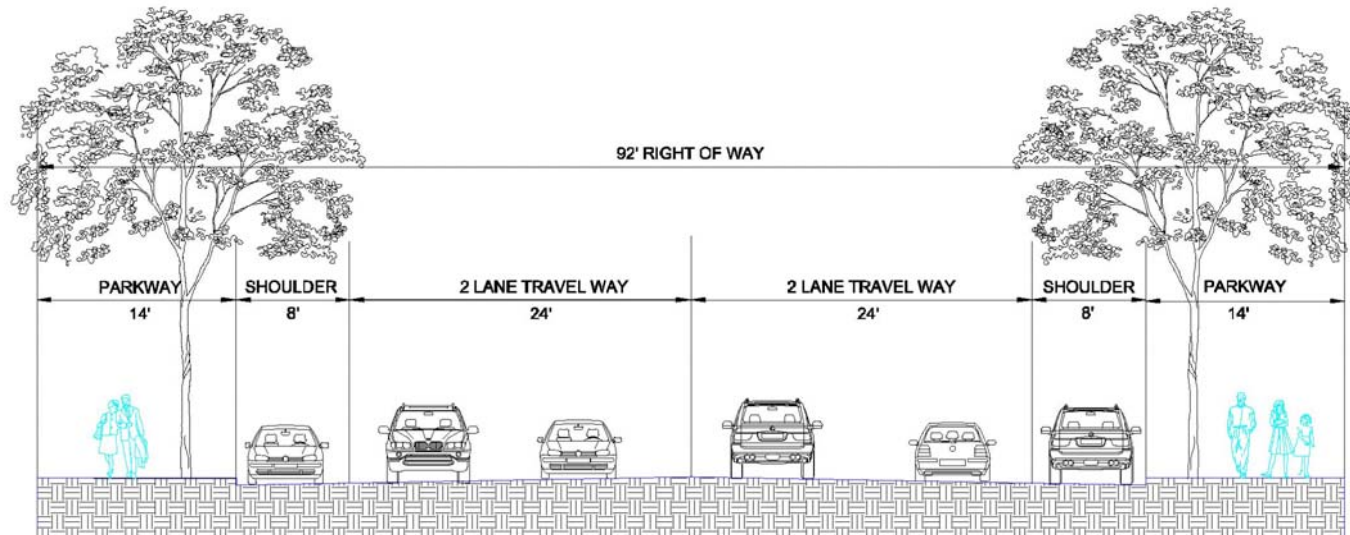
4.1A – Major Road with Raised Median (existing Major Road standard) is appropriate for regional travel between communities where higher traffic volumes are forecast. Potential applications include state highways such as SR67.

4.1B – Major Road with Intermittent Turn Lanes is the same as the existing Collector Road standard (the current Public Road Standards provide for intermittent turn lanes for a 4-lane Collector Road). It will typically be used in areas where turning movements are infrequent or where ROW is limited.

	Minimum Standards		Description
	4.1A – Major Road with Raised Median	4.1B – Major Road with Intermittent Turn Lanes	
Design Speed	55 mph	55 mph	
Threshold Capacity	33,400 ADT	30,800 ADT	
ROW	98 '	84 ' (to 98')	ROW increases to 98' for intermittent turn lanes.
Travel Way	48 '	48 '	4 travel lanes, 12' each
Medians	14 '	None	Median is raised, depressed or flat with optional surface treatments or landscaping
Shoulder	8 '	8 '	Parking restriction should be considered due to high speed travel.
Parkway	10 '	10 '	Typically contains landscaping and utilities. Additional width may be required for trails (pathways).



4.2 A – Boulevard with Raised Median



4.2 B – Boulevard with Intermittent Turn Lane

4.2 BOULEVARD SERIES

The Boulevard Series is a four-lane roadway with a low design speed and a wider parkway that should be used in Villages where higher traffic volumes are combined with on-street parking, pedestrian, bicycle and transit activities. The Boulevard Series can also be used in rural areas that are constrained by slopes or where the community requests a context sensitive solution.

4.2A - Boulevard with Raised Median has a wide parkway that accommodates non-motorized circulation. The median controls access, provides dedicated turn lanes, and increases road capacity. Potential applications include four-lane roadways that traverse villages in Ramona and Valley Center.

4.2B - Boulevard with Intermittent Turn Lane has a wide parkway that accommodates non-motorized circulation. This road would typically be used where turning movements are infrequent or where ROW is limited.

	Minimum Standards		Description
	4.2A – Boulevard with Raised Median	4.2B – Boulevard /w Intermittent Turn Lane	
Design Speed	40 mph	40 mph	
Threshold Capacity	27,000 ADT	25,000 ADT	
ROW	106 '	92 ' to 106 '	ROW will increase where bike lanes are required. ROW for Boulevard 4.2B will increase to 106' at intersections to accommodate a dedicated turn lane.
Travel Way	48 '	48 '	4 travel lanes, 12' each
Medians	14 '	None	14' median is typically raised or depressed with surface treatments or landscaping.
Shoulder	8 '	8 '	Add additional width for bicycle lanes, as required.
Parkway	14'	14 '	Typically contains landscaping, utilities, walkways and/or bicycle paths. Additional width may be required for trails.

TWO LANE ROADS

2.1 Community Collector Series

2.2 Light Collector Series

2.3 Minor Collector Series

Typical cross sections are located on pages 20 and 21

2.1 COMMUNITY COLLECTOR SERIES

The Community Collector Series is a two-lane roadway that primarily serves motorized traffic. Because of the higher design speed, it is appropriate for areas with few physical constraints and areas with little pedestrian, bicycle or other non-motorized traffic. See pages 20 and 21 for cross sections.

2.1A - Community Collector with Raised Median provides more capacity, controls turn movements and improves flow.

2.1B - Community Collector with Continuous Turn Lane improves traffic flow in areas with multiple curb cuts.

2.1C - Community Collector with Intermittent Turn Lane provides more capacity and improves traffic flow.

2.1D - Community Collector with Passing Lane Option has a wider right-of-way for optional or periodic passing lanes to accommodate higher traffic volumes. This road type could be used for State Highways where physical constraints are limited. Please note that passing lanes are not appropriate for Villages. If road improvements (intermittent turn lanes, medians, etc.) other than passing lanes are recommended for 2.1D, that will be indicated in staff recommendations.

2.1E - Community Collector has no special features. It accommodates low to medium traffic volumes in areas where non-motorized traffic and physical constraints are limited.

	Community Collector Series: Minimum Standards					Description
	2.1A Raised Median	2.1B Continuous Turn Lane	2.1C Intermittent Turn Lane	2.1D Passing Lane Option	2.1E (No features)	
Design Speed	45 mph	45 mph	45 mph	45 mph	45 mph	
Threshold Capacity (ADT)	15,000	13,500	13,500	13,500	10,900	
ROW	74'	74'	60' to 74'	84'	60'	Wider ROW required for 2.1C for turn lanes at intersections.
Travel Way	24'	24'	24'	24'	24'	2 travel lanes, 12' each (plus optional passing lane for 2.1D)
Medians	14'	14'	None	None	None	Design Manual will address treatments.
Shoulder	8'	8'	8'	8'	8'	Add additional width for bicycle lanes.
Parkway	10'	10'	10'	22'	10'	2.1D is wider for passing lane option.

2.2 LIGHT COLLECTOR SERIES

Light Collectors are 2-lane roads with a lower design speed and wider parkway than the Community Collector standard. They can be used in rural areas with medium physical constraints or in urbanized areas with moderate levels of non-motorized circulation. See pages 20 and 21 for cross sections.

2.2A - Light Collector with Raised Median has a median that provides more capacity, controls turn movements and improves traffic flow.

2.2B - Light Collector with Continuous Turn Lane improves traffic flow in areas with multiple curb cuts.

2.2C – Light Collector with Intermittent Turn Lanes has intermittent, dedicated turn lanes that provide more capacity and improve traffic flow.

2.2D - Light Collector with Passing Lane Option has a wider right-of-way for optional passing lanes. It can be used for roads within the State Highway system that traverse through physically constrained land, but passing lanes would not be appropriate in Villages. If road improvements other than passing lanes (intermittent turn lanes, medians, etc.) are recommended for 2.1D, that will be indicated in staff recommendations.

2.2E - Light Collector has no special features. It accommodates low to medium traffic volumes where non-motorized traffic and physical constraints are limited.

2.2 F - Light Collector with Reduced Shoulder has a two foot shoulder, a rolled curb with graded pathway, and a narrow right-of-way.

	Light Collector Series: Minimum Standards						Description
	2.2A Raised Median	2.2B Continuous Turn Lane	2.2C Intermittent Turn Lanes	2.2D Passing lane option	2.2E (No Features)	2.2F Reduced shoulder	
Design Speed	40 mph	40 mph	40 mph	40 mph	40 mph	40 mph	
Threshold Capacity (ADT)	13,500	13,500	13,500	13,500	10,900	8,700	
ROW	78'	78'	64' to 78'	88'	64'	52'	Wide ROW for 2.2D accommodates turn lanes at intersections
Travel Way	24'	24'	24'	24'	24'	24'	2 travel lanes, 12' each (plus optional passing lane for 2.2A)
Medians	14'	14'	None	None	None	None	Design Manual will address treatments.
Shoulder	8'	8'	8'	8'	8'	2'	Add 5' for bicycle lanes, if required
Parkway	12'	12'	12'	24'	12'	12'	

2.3 MINOR COLLECTOR SERIES

The Minor Collector is a two-lane roadway with a very low design speed that is appropriate for rural areas that are highly constrained and for areas within a Village with heavy pedestrian, bicycle and transit activities. This standard could also be used in Semi-Rural areas with high levels of “side friction”, or access from adjacent parcels.

Minor Collectors have a wide parkway that, in rural areas, can be used to grade slopes and improve visibility or to improve tight curves. In more urbanized areas, the wide parkway can be used for pedestrian and bicycle paths and for landscape buffers between vehicular and non-vehicular circulation. See pages 20 and 21 for cross sections.

2.3A - Minor Collector with Raised Median has a raised or depressed median with dedicated turn lanes and controlled turn movements that improve traffic flow and add rural character when the median is landscaped.

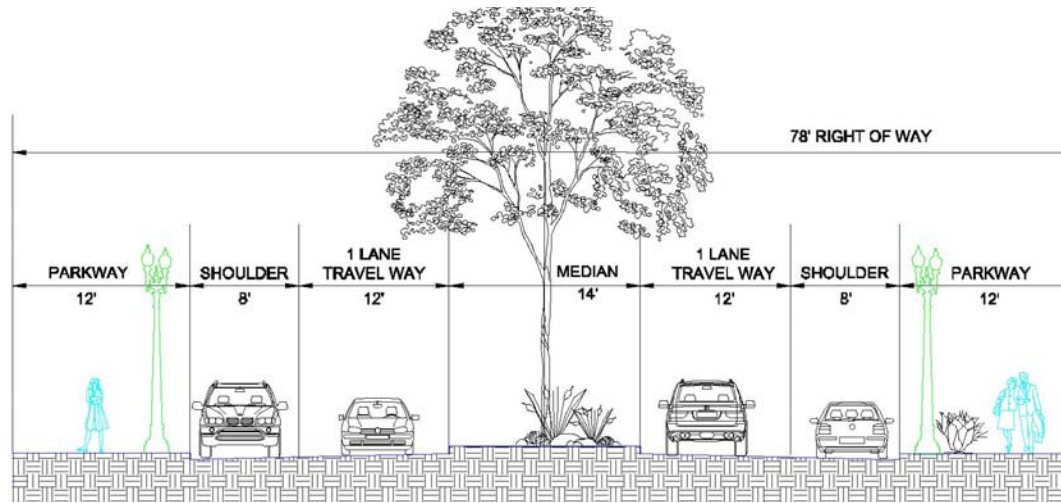
2.3B - Minor Collector with Intermittent Turn Lane improves traffic flow in areas with multiple curb cuts.

2.3C – Minor Collector has no additional features and is primarily intended for residential neighborhoods or for rural areas with steep slopes and physical constraints.

	Minor Collector Series: Minimum Standards			Description
	2.3A Raised Median	2.3B Intermittent Turn Lane	2.3C (No Features)	
Design Speed	35 mph	35 mph	35 mph	
Threshold Capacity (ADT)	8,000 ADT	8,000 ADT	7,000 ADT	
ROW	82 ‘	82 ‘	68 ‘	Wider ROW required for bike lanes.
Travel Way	24’	24’	24’	2 travel lanes, 12’ each
Medians	14’	14’	None	Median is typically raised or depressed with optional surface treatments or landscaping
Shoulder	8’	8’	8’	Add 5’ for bike lanes, if required
Parkway	14’	14’	14’	Parkway includes landscaping, utilities, trails or bicycle paths, as required

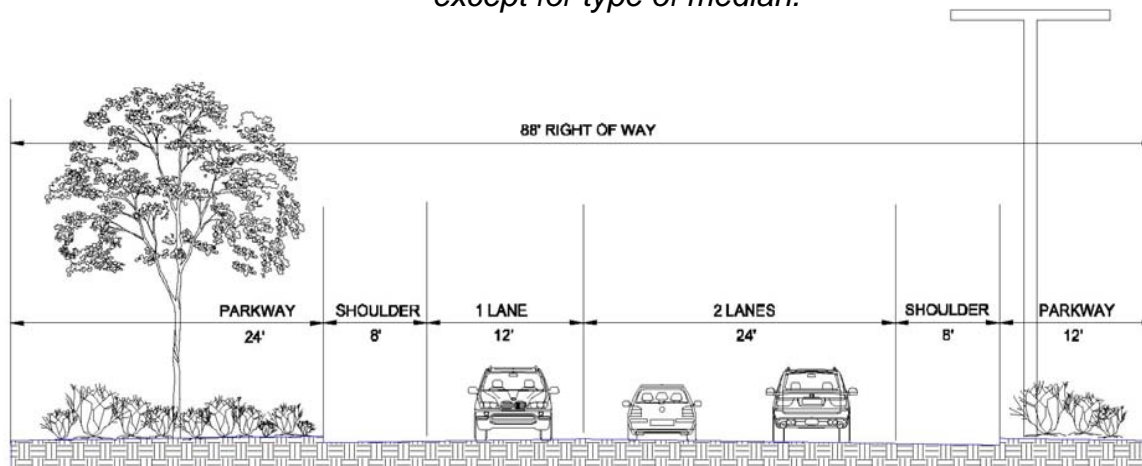
TYPICAL CROSS SECTIONS

2.2 Light Collector Series



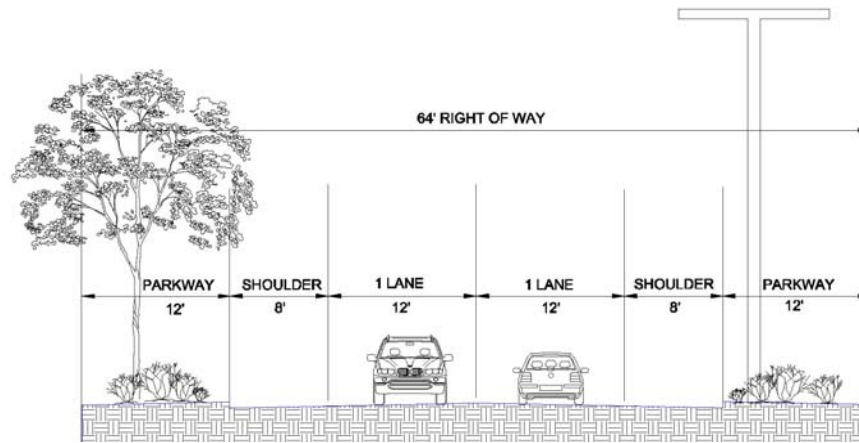
2.2A - Light Collector with Raised Median

Cross Section for 2.2B, Light Collector with Continuous Turn Lane, is similar except for type of median.



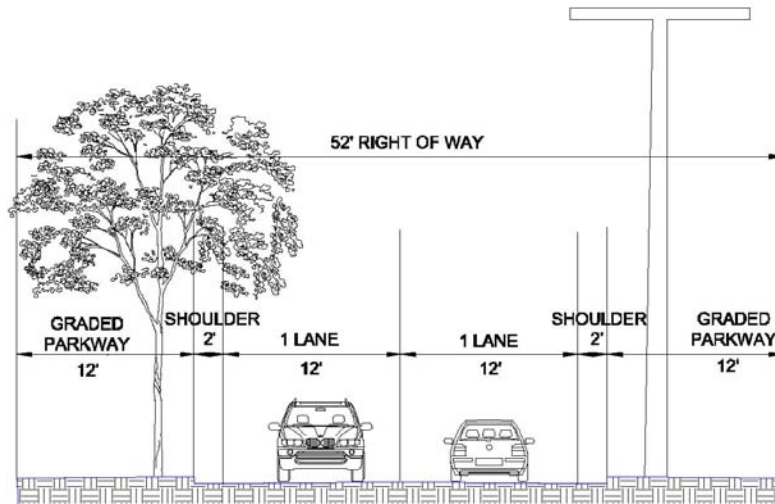
2.2D - Light Collector with Passing Lane Option

Shown with passing lane in one direction.



2.2E - Light Collector

Cross section for 2.2 C is similar except at intersections, which contain a 14' dedicated turn lane that produces a wider ROW.



2.2F - Light Collector with Reduced Shoulder

2.1 Community Collector 2.2 Minor Collector Series

Typical cross sections for the Community Collector and Minor Collector series are the same as those shown for the Light Collector Series except for the parkway width and right-of-way. Typical parkway widths are:

- 2.1 Community Collector = 10'
- 2.2 Light Collector = 12'
- 2.3 Minor Collector = 14'

Note: The minimum ROW for a 2.2 Light Collector and 2.3 Minor Collector may be reduced if located in an area that is already developed. A reduced ROW can be achieved by using a 10' minimum parkway. This solution should not be used where adequate ROW is available for the 12' or 14' parkway standard.

Glossary of Terms

Alignment: A planning term used to identify the general location of a current or future roadway. For future roadways, it is intended to describe a designated area or buffer set aside so a specific alignment can be determined as the need is established.

Average Daily Trips (ADT's): The total traffic volume during a given period divided by the number of days in that period. ADT volumes can be determined by continuous traffic counts or periodic counts.

Bike Lanes: Bike lanes are paved areas located between the travel lane(s) and shoulder. Bike lane locations are identified on the County's Bicycle Master Plan, and will require wider paved shoulders and outside travel way.

Curve Radius: A geometric design feature of the roadway. The curve radius can determine safety features and design speed of a given segment of road.

Capacity: The measure of a transportation facility's ability to accommodate a moving stream of people or vehicles in a given time period. Capacity and Level of Service (LOS) are analyzed separately and are not simply related to each other; both must be fully considered to evaluate the overall operation of a facility.

Collector: Collector roads are designed to collect traffic from local streets and direct that traffic into larger arterials or regional expressways. In rural areas, collector routes serve intra-county rather than statewide travel. In urban areas, collector streets provide direct access to neighborhoods and arterials.

Design Speed: The design speed of a roadway dictates which geometric design standards are used such as stopping sight distance, radius of curves, and banking (super-elevation) of road surfaces.

Expressway: A controlled access, divided arterial highway for through traffic, the intersections of which are usually separated from other roadways by differing grades.

Freeway: A divided arterial highway designed for the unimpeded flow of large traffic volumes. Access to a freeway is rigorously controlled and intersection grade separations are required.

Grade: The slope (ratio of change in elevation to change in distance) of a roadway typically given in percent. *For example, a 2% grade represents 2-feet of elevation change over a 100-foot distance.*

Level of Service: A qualitative measure describing operational conditions within a traffic stream and the motorists' perceptions of those conditions. For example, LOS A represents free flow, almost complete freedom to maneuver within the traffic stream. LOS F represents forced flow, more vehicles are attempting to use the freeway than can be served resulting in stop and go traffic.

Local Road/Street: A road or street intended for access to adjacent properties.

Median: The portion of the roadway that separates opposing directions of traffic. It can be raised, landscaped or level with the roadway, with turn features added intermittently or used as a continuous left turn lane.

Multimodal (transportation): Generally refers to all modes of transportation, including motorized and non-motorized forms. Non-motorized modes within the unincorporated County typically include bus transit, pedestrian walking or jogging, biking, and equestrian movements.

Right of Way (ROW): The overall width of the roadway components, technically the area from property line to property line. These areas are predominately used for vehicular transportation and may also contain pedestrian walkway, utility easements, railroad crossings, and/or on-street parking areas.

Road Bed – The specified width of pavement of the roadbed measured from curb face to curb face. In the absence of curbs, the pavement width is measured from the edges of the roadbed. The roadbed or pavement width is typically utilized for vehicular traffic.

Parkway: The area from shoulder edge to the property line. Parkway width requirements can increase if bike lanes or other facilities/amenities are indicated on countywide master plans.

Public Road: Any road under the jurisdiction of and maintained by a public authority such as Federal, State or County jurisdictions, which is open to public travel.

Shoulder: The area between the travel lanes and the parkway, which is usually set aside for parking, bicycle lanes and emergency pull-off.

Sidewalk: A paved pedestrian walkway, generally located within the parkway.

Trail: A marked, graded or paved non-motorized path, typically removed from vehicular roadways that are primarily recreational in nature. Trails can also serve as alternative modes of transportation. Trail characteristics vary depending upon location and type of use.

Threshold Capacity: The maximum capacity a road can carry at an acceptable level of service (defined by County policy as LOS A through D). Traffic volumes above this threshold indicate an unacceptable level of service (LOS E, F).

Travelled Way: The lanes of a roadway which the moving vehicles travel; does not include medians.